



Nautical Deck Queries

1. You are to sail from Elizabethport, N.J., on 17 November 1983 with a maximum draft of 27 feet. You will pass over an obstruction in the channel near Sandy Hook that has a charted depth of 25.5 feet. The steaming time from Elizabethport to the obstruction is 1h 50m. What is the earliest time (ZD +5) you can sail on 17 November and pass over the obstruction with 2 feet of clearance?

Note: When computing height of tide correction utilizing Table 3 of the Tide Tables you are not to interpolate.

A. 0059

Incorrect Answer.

B. 0121

Correct Answer: In the Tide Tables, on November 17th, the Sandy Hook reference station numbers contain the low tide correction at 2300 (Nov 16) of -0.1 ft. and the high tide correction at 0518 of 4.5 ft. for a range of tide of 4.6 ft. (4.5' - (-) 0.1') and the duration of rise then is 6h-18m (which is the difference between 2300 to 0518). The height correction of 3.5 ft. to safely pass over the obstruction is derived by adding the ship's 27 ft. draft to the required 2 ft. under keel clearance, and then subtracting the charted depth of the obstruction of 25.5 ft. In Table 3 of the Tide Tables, for the range of tide of 4.6 ft. the nearest value of 4.5 ft. is to be used. Then on a horizontal line from 4.5 ft., locate the 1.0 ft. correction to height (the last value being the difference between your required height correction of 3.5 ft. and the nearest hi/low water which is 4.5 ft. at 0518). Upon locating 1.0 ft., proceed in the same column, Duration of Rise, to the horizontal intersection of 6h-20m (which is the nearest value to the actual duration of rise of 6h-18m.) At this intersection the time of 2h-07m is indicated as the time from nearest high water. Subtracting 2h-07m from the high tide at 0518 will result in 0311 as the time the vessel will have the minimum required under keel clearance. Then subtracting 1h-50m hours steaming time (dock to the obstruction) from the time of 0311 (clearing the obstruction), will result in 0121 as the earliest possible time a ship may sail.

C. 0159

Incorrect Answer.

D. 0221

Incorrect Answer.

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2. The moon is subject to four types of libration. Which of the following is NOT one of these types of libration?

Definition of libration: A real or apparent oscillatory motion, particularly the apparent oscillation of the moon, which results in more than half of the moon's surface being revealed to an observer on the Earth. The appearance results, even though the same side of the moon is always towards the earth, as a result of the moon's period of rotation and revolutions occurring at the same rate as that of the earth.

A) Libration in latitude

Incorrect Answer: This libration depends on the variation of the position of the moon's axis in respect to the observer, causing the alternate appearance and disappearance of either pole. Libration in latitude occurs because the axis of rotation is not perpendicular to the plane of the orbit, so an observer in the northern hemisphere can sometimes see over the north pole and under the south pole.

B) Diurnal libration

Incorrect Answer: Otherwise known as parallactic libration, this libration brings into view on the edge of the apparent disk of the moon, at rising and setting, some parts not in the average visible hemisphere. The earth's rotation results in the observer to see slightly different parts of the moon at different times.

C) Physical libration

Incorrect Answer: This libration appears as a result of a small pendulum-like rotational oscillation of the moon with respect to its radius vector around its own center of gravity.



*Prepared by NMC Deck
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D) Horizontal libration

Correct Answer: This is not a libration of the moon.

The fourth type of libration is the libration of the longitude. This libration is dependent upon the position of the moon in its elliptic orbit, resulting in a small area near the visible eastern and western edges of the moon to alternately be visible or not visible each month.

3. INTERNATIONAL ONLY. If a towing vessel and her tow are severely restricted in their ability to deviate from their course, the towing vessel shall show lights in addition to her towing identification lights. These additional lights shall be shown if the tow is _____.

International Rule 27(c): A power-driven vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course shall, in addition to the lights or shapes prescribed in Rules 24(a), exhibit the lights or shapes prescribed in subparagraphs (b)(i) and (ii) of this Rules. Also note, the term SHALL in the rules is prescriptive, requiring the correct application of the Rule. The term MAY is permissive, and is only voluntary under the Rules.

A. pushed ahead

Incorrect Answer: International Rule 27(c) limits its application to vessels towing astern, however vessels pushing ahead or towing alongside MAY show the restricted in ability to maneuver lights and shapes in addition to their towing identification lights

B. towed alongside

Incorrect Answer: International Rule 27(c) limits its application to vessels towing astern, however vessels pushing ahead or towing alongside MAY show the restricted in ability to maneuver lights and shapes in addition to their towing identification lights.

C. towed astern

Correct Answer: International Rule 27(c) states that restricted in ability to maneuver lights and shapes will be in addition to the lights prescribed specifically in Rule 24(a). International Rule 24(a), under Rule 24 Towing and Pushing, refers to vessels towing astern only (Rule 24(c) refers to towing vessels pushing ahead or towing alongside). International Rule 27(c) is different from Inland Rule 27(c) in that Inland Rule 27(c) refers to Rule 24 in itself, encompassing all three types of towing functions.

D. All of the above

Incorrect Answer: Only answer C is correct and All of the Above cannot be accepted.

4. Regulations concerning the stowage, lashing, and securing of timber deck cargoes aboard general cargo vessels may be found in the _____.

A. International Cargo Bureau Regulations

Incorrect Answer: The International Cargo Bureau does not develop regulations regarding stowage of cargo but rather the registration, inspection, certification, and documenting of cargo handling equipment.

B. Load Line Regulations

Correct Answer: The regulations concerning the securing of timber deck cargoes are located in the Code of Federal Regulations, Title 46 Subchapter E, Load Lines, Subpart 42.25, Special Requirements for Vessels Assigned Timber Freeboards.

C. Rules and Regulations for Cargo and Miscellaneous Vessels

Incorrect Answer: The Code of Federal Regulations, Title 46 Subchapter I, Cargo and Miscellaneous Vessels, contains regulations on inspection and certification, construction and arrangement, fire protection equipment, and vessel control and miscellaneous systems and equipment.

D. Vessel's classification society rules and regulations

Incorrect Answer: Vessel classification societies set standards for ship design, construction, and the "through-life" compliance of rules and regulations promulgated by the international maritime community.